Title (en)

OIL WELL SEAMLESS PIPE HAVING EXCELLENT SULFIDE STRESS CRACKING RESISTANCE AND METHOD FOR MANUFACTURING AN OIL WELL SEAMLESS STEEL PIPE

Title (de)

ÖLBOHRUNGSNAHTLOSENSTAHLROHR MIT HOHER SULFID-SPANNUNGSRISS-BESTÄNDIGKEIT UND VERFAHREN ZUR HERSTELLUNG EINES ÖLBOHRUNGSNAHTLOSENSTAHLROHRES

Title (fr)

TUYAU DE PUITS DE PÉTROLE EN ACIER SANS SOUDURE AYANT UNE EXCELLENTE RÉSISTANCE À LA CORROSION FISSURANTE PAR L'HYDROGÈNE SULFURÉ ET PROCÉDÉ À FABRIQUER UN TUYAU DE TUITS DE PÉTROLE EN ACIER SANS SOUDURE

Publication

EP 1862561 A1 20071205 (EN)

Application

EP 06728622 A 20060303

Priority

- JP 2006304143 W 20060303
- JP 2005086995 A 20050324

Abstract (en)

A steel for an oil well pipe, having high strength and excellent SSC resistance, and a method for producing a seamless steel pipe for an oil well having these characteristics. The steel consists of, by mass %, C: 0.30 to 0.60%, Si: 0.05 to 0.5%, Mn: 0.05 to 1.0%, Al: 0.005 to 0.10%, Cr+Mo: 1.5 to 3.0%, wherein Mo is 0.5% or more, V: 0.05 to 0.3%, Nb: 0 to 0.1 %, Ti: 0 to 0.1%, Zr: 0 to 0.1%, N (nitrogen): 0 to 0.03%, Ca: 0 to 0.01%, and the balance Fe and impurities. Among impurities P is 0.025% or less, S is 0.01% or less, B is 0.0010% or less and O (oxygen) is 0.01% or less. The method is characterized by heating a steel ingot having the above chemical composition at 1150°C or more; producing a seamless steel pipe by hot working; water-cooling the pipe to a temperature in a range of 400 to 600°C immediately after finishing the working; and subjecting the pipe to a heat treatment for bainite isothermal transformation in a range of 400 to 600°C. A complementary heating treatment may be performed in a range of 900 to 950°C before water-cooling.

IPC 8 full level

C21D 8/10 (2006.01); **C22C 38/00** (2006.01)

CPC (source: EP NO US)

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